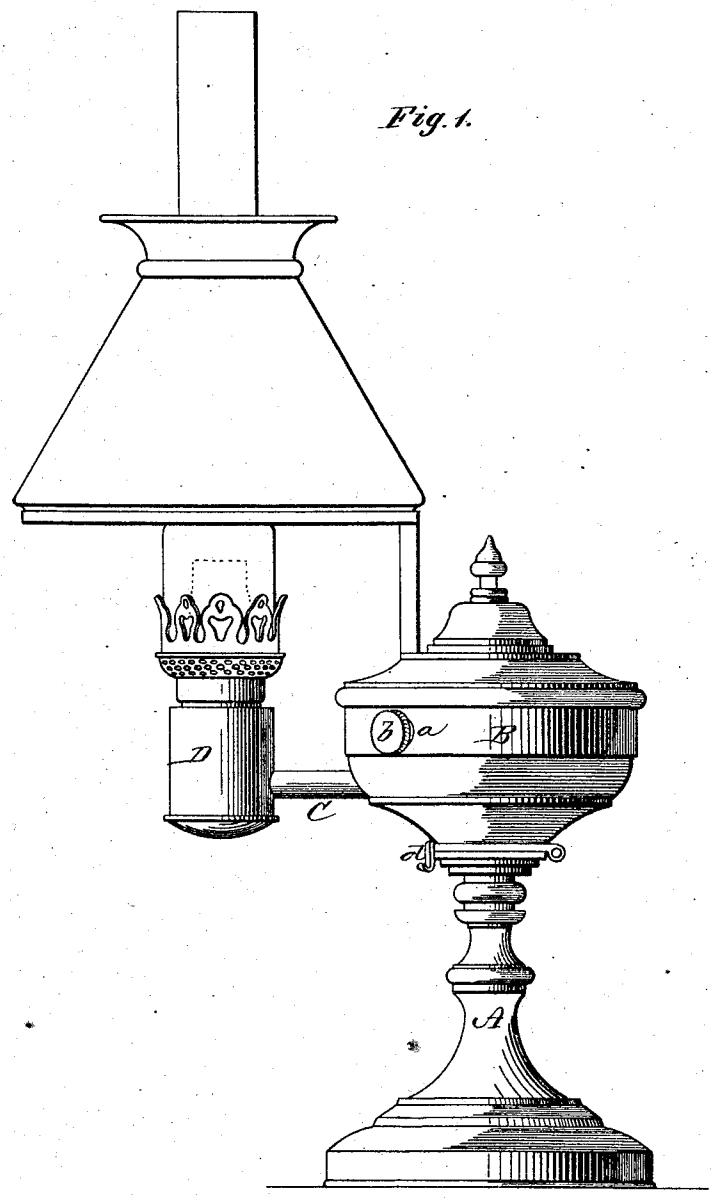
2 Sheets--Sheet 1.

A. M. BLAKE.

Lamp.

No. 159,381. Patented Feb. 2, 1875.

Fig. 1.



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2 Sheets--Sheet 2.

A. M. BLAKE.

Lamp.

No. 159,381. Patented Feb. 2, 1875.

Fig. 2.

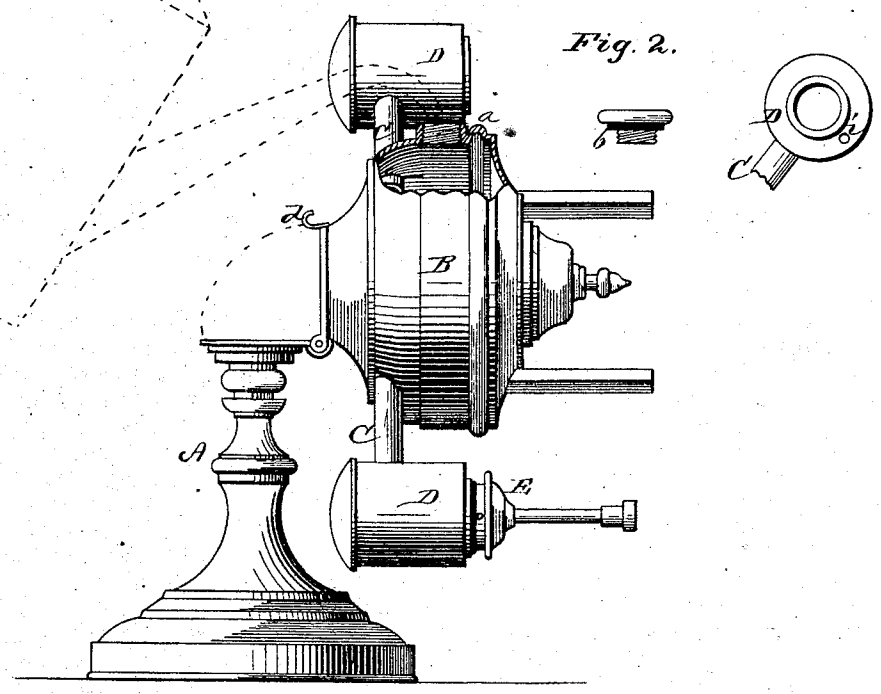
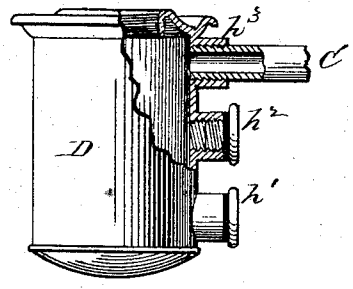


Fig. 3.



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UNITED STATES PATENT OFFICE.

ANDREW M. BLAKE, OF CANTON, OHIO.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **159,381**, dated February 2, 1875; application filed January 15, 1875.

To all whom it may concern:

Be it known that I, ANDREW M. BLAKE, of Canton, in the county of Stark and in the State of Ohio, have invented certain new and useful Improvements in Lamps; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a lamp having its oil-reservoir hinged to the stand or foot, and the inlet for the oil situated at the side of the reservoir, and provided with one or more wick-chambers, connected, by tubes, with the reservoir at or near the bottom thereof. It also consists in an adjustable wick-chamber, to be moved up or down, according to the gravity of the oil used, all as hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation of a lamp having one wick-chamber and embodying my invention. Fig. 2 is a similar view of a lamp having two wick-chambers, showing it in position for filling. Fig. 3 is a side view, part in section, of the adjustable wick-chamber.

A represents any ordinary stand or foot for a lamp, and B is the oil-reservoir resting on top thereof. The oil-reservoir B is provided with the inlet *a* for the oil on the side, said inlet being provided with a cap, *b*. The reservoir is hinged at one side to the top of the stand A, in such a manner that when the reservoir is turned over, as shown in Fig. 2, the air-inlet *a* will be on top and the reservoir be filled in the ordinary manner. When the reservoir is turned back to rest on the top of the stand it is held by means of a spring-catch, *d*, or other suitable device. From at or near the bottom of the reservoir project one or more tubes, C, at the outer end of each of which is attached a wick-chamber, D, provided with any ordinary burner. In the top of the chamber D is an aperture, *i*, for the admission of air into the chamber.

The operation of this lamp is as follows: The reservoir B being turned over on the side and filled with oil, the inlet *a* is closed by the cap or plug *b*. When, now, the reservoir is turned back, the oil will at once flow through the pipe C into the wick-chamber D; but, as a vacuum is formed in the top of the oil-reservoir, the oil is held in suspension in the chamber below its level in the reservoir, and sufficiently high to close the end of the pipe C. Now, when the oil in the chamber D falls by being burned, as soon as the least portion of the end of the tube C is uncovered, air from the chamber will pass into the reservoir and create enough pressure to feed oil into the chamber again sufficient to close the end of the pipe and exclude air. In this manner the oil is fed into the wick-chamber only as needed, and the reservoir or tank containing the oil may be elevated any desired distance above the burner. When more than one wick-chamber is used the burners of the chamber or chambers, which are down when the reservoir is turned over to be filled, must be removed, and such chambers closed by means of a screw-plug, E, while the reservoir is being filled.

In Fig. 3 I have shown the wick-chamber D formed with three apertures, h^1 h^2 h^3, two of which are always closed by means of plugs or caps, and the third screwed on the end of the pipe C. These apertures are at different heights on the chamber, and are to be used according to the gravity of oil burned. The bottom aperture, h^1, is to be screwed on the end of the pipe C when the lighter hydrocarbon oils are used, the middle aperture, h^2, when the heavier hydrocarbon oils are used, and the top aperture, h^3, when animal oils are burned. This latter is especially to be used on steamboats, railroad-cars, and similar places where such heavy oils are burned.

A lamp constructed upon this plan will give a steady and uniform light till almost every drop of oil is gone, and there is no danger of explosion from any cause.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A lamp-reservoir closed at its top, having a wick-chamber connected to but removed therefrom, and having a side opening for fill-

ing independent of the opening in the wick-chamber, and hinged to a standard, for the purposes set forth.

2. In combination with the reservoir B and pipe C, a removable and adjustable wick-chamber, D, substantially as and for the purposes herein set forth.

3. In combination with the reservoir B, hinged to the standard, and having an opening, *a*, on its side, and two or more wick-chambers, D, the closed cap E upon the wick-chamber, substantially as and for the purposes herein set forth.

4. The combination of the standard A, the reservoir B, hinged to the standard, and having an opening, *a*, in its side, one or more pipes, C, and one or more wick-chambers, D, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of January, 1875.

ANDREW M. BLAKE.

Witnesses:
J. M. MASON,
WM. H. MINNIX.